

CLAIMS

1. A control apparatus of an industrial-purpose robot equipped with an electromagnetic type brake which locks a shaft of a motor, comprising:

a first relay contact which is closed when the electromagnetic type brake is released; and

a second relay contact which is closed when driving electric power is supplied to the motor, wherein

the first relay contact, the second relay contact, and the electromagnetic type brake are series-connected to a drive-purpose power supply of the electromagnetic type brake.

2. The control apparatus of an industrial-purpose robot as claimed in claim 1, wherein

while a signal for closing the second relay contact is outputted, a signal for closing the first relay contact is outputted.

3. The control apparatus of an industrial-purpose robot as claimed in claim 1 or 2, further comprising:

a control unit for outputting a release signal of the electromagnetic type brake;

manual brake releasing input member for outputting a release signal of the electromagnetic type brake by being manually operated by an operator; and

selecting member for selecting any one of the release

signal outputted from the control unit and the release signal outputted from the manual brake releasing input member so as to operate the first relay and the second relay.

4. The control apparatus of an industrial-purpose robot as claimed in claim 3, wherein

the selecting member selects the output from the control unit when the driving power supply of the motor is turned ON, and selects the output from the manual brake releasing input member when the driving power supply of the motor is interrupted.

5. The control apparatus of an industrial-purpose robot as claimed in claim 3, or 4, wherein

the manual brake releasing input member is provided on a hand held operating device.

6. The control apparatus of an industrial-purpose robot as claimed in claim 3, or 4, wherein

the manual brake releasing input member corresponds to an external signal.